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ABSTRACT

This paper reviews the literature related to wellness. Wellness is reviewed in terms of definitions, theoretical perspectives, and research approaches. The definitions of wellness by six theorists are outlined. Regardless of definition chosen, today's conception of wellness has been fostered by disillusion with traditional medicine and the growing self-care movement. Recent interest in a holistic approach to life supports concerns with wellness and wellness readiness. Both qualitative and quantitative measures of wellness can be found in the literature, and both research approaches tend to focus on the wellness activities of employees and students, especially college students. Wellness centers and associated facilities are becoming more common on college and university campuses. (Contains 92 references.) (SLD)

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STUDENT AND EMPLOYEE WELLNESS IN HIGHER EDUCATION: A LITERATURE REVIEW

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Health has historically meant the absence of disease. But our expectations of a reasonable quality of life have surpassed that of merely existing disease free. Today we aspire to a higher level of health, often referred to as wellness (Byer & Shainberg, 1995). Wellness generally entails engaging in attitudes and behaviors that improve one's quality of life.

This paper reviews the literature related to wellness. Wellness is reviewed in terms of definitions, theoretical perspectives, and research approaches.

Defining Wellness

The World Health Organization defined health as "a state of complete physical, mental, and social well-being, and not merely the absence of disease" (1947, p. 29). According to Edlin and Golanty (1992),

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this definition is so broad and covers so much that it is said by some to be meaningless. But its universality is exactly right. People's lives, and therefore their health, are affected by everything they interact with--environmental influences such as climate; the availability of nutritious food, comfortable shelter, clean air to breath, and pure water to drink; and other people, including family, lovers, employers, coworkers, friends, and associates of various kinds. (p. 5)

The definitions of wellness espoused by the following people will be reviewed: Halbert Dunn, Donald B. Ardell, William H. Hettler, Barbara Montgomery Dossey and Lynn Keegan, John W. Travis and Regina Sara Ryan, and J.J. Pilch.

Halbert Dunn

Dunn's (1961) definition of wellness is credited with inspiring others to think of wellness in terms of an integrated method of functioning. That is, to think of the total individual--the body, mind, and spirit--as a functioning reality. According to Dunn, "the integration of the self, which is so essential to the state of high-level wellness, can best be achieved when the body is in balance--when the energy forces of the body are free to flow where they will, to reach equilibrium" (p. 135). It is the self which gives us "the seat of choice,

the reason for choosing" (p. 125). Tenants of Dunn's thinking can be traced to ancient Greek and Chinese philosophy.

Donald B. Ardell

Lifestyles characterized by high-level wellness are the alternative to doctors, drugs and disease (Ardell, 1977). In addition, people expect too much from traditional medicine and too little from themselves. According to Ardell,

> [w]ellness has five dimensions: self-responsibility, nutritional awareness, stress management, physical fitness, and environmental sensitivity. Within each of these areas, there exists a wealth of information that you can evaluate and apply to your life--as appropriate. Take what fits--and pass on the rest. Avoid getting trapped in the 'swallow-it-whole' syndrome. (p. 1)

Furthermore, according to Ardell,

> [a]ll dimensions of high level wellness are equally important, but self-responsibility seems more equal than all the rest. It is the philosopher's stone, the mariner's compass, and the ring of power to a high level wellness lifestyle. Without an active sense of accountability for your own well-being, you won't have the necessary motivation to lead a health-enhancing lifestyle. (p. 102)

William H. Hettler

Hettler (1980) encouraged a holistic approach to wellness that emphasized change and effective daily decision making. His holistic framework included the following six dimensions: intellectual, emotional, physical, social, occupational, and spiritual. According to Hettler, successful choices are influenced by an individual's self-concept and the parameters of his or her culture and environment. Wellness is "an active process through which the individual becomes aware of and makes choices toward a more successful existence . . . a positive approach to living--an approach that emphasizes the whole person." (Hettler, 1980, p. 77).

Barbara Montgomery Dossey & Lynn Keegan

Wellness is a continual process of evolution by which an individual increases his or her awareness, purpose, quality of life, and uniqueness in six areas of human potential (Dossey & Keegan, 1988). These areas include the physical self, the mental self, emotions, spirituality, relationships, and choices. Together "they comprise the body-mind, the single integrated entity of one's total psychophysiologic experience" (p. 12). One area is no more important than another. However, "[i]f one area of our human potential is left undeveloped, one has the feeling that things are not as good as they could be" (p. 20). When one is striving to develop in all areas, a sense of

wholeness emerges. Life becomes more exciting, rewarding, and fulfilling. The whole person is able to recognize choices even when frustrations arise. According to Dossey and Keegan, "[a]s we take responsibility for making effective choices, then the necessary changes occur in our lives. This then places us in the position to clarify our life patterns, purposes, and processes" (p. 3). To Dossey and Keegan, wellness not only means behaving healthfully but also entails a fundamental shift in thinking.

John W. Travis & Regina Sara Ryan

Travis and Ryan (1988) are credited with depicting health as a continuum from premature death to total wellness. In the middle of their two extremes is a middle, or neutral point. Moving from the midpoint to the left depicts a progressively poorer state of health. Moving from the midpoint to the right depicts an increasing level of wellness. Practitioners of traditional medicine target the area of the continuum ranging from neutral to premature death. Whereas wellness education can range from any point on the continuum to total wellness. To Travis and Ryan, wellness includes the dimensions of self-responsibility and love, breathing, sensing, eating, moving, feeling, thinking, playing/working, communicating, sexuality, finding meaning, and transcending. Travis and Ryan essentially

believe that wellness is achieved by getting to know oneself and perceiving oneself as growing, learning, and changing.

J.J. Pilch

Pilch's definition is almost entirely spiritually-based. According to Pilch (1989), wellness is

> a lifestyle that is based on an experience of God and shaped in response to that experience. This lifestyle views and lives life as purposeful and pleasurable, seeks out life-sustaining and life-enriching options that are freely and personally chosen at every opportunity. It enhances self-esteem and continually challenges one's values, striving always to sink ever-deeper roots into spiritual values and religious beliefs. (p. 5)

The general idea of wellness lends itself to being interpreted differently by different people. For instance, Dunn (1961) stressed the integration, balance, and ultimate equilibrium of the total individual. Ardell (1977) emphasized stress management, medical self-care, and self-responsibility. Hettler (1980), Dossey, and Keegan (1988) were interested in human potential from a holistic perspective. Dunn, Dossey, and Keegan recognized choice as having power in people's lives. Travis and Ryan (1988) are responsible for illustrating health and wellness as dichotomous. And Pilch (1989) emphasized responsiveness to God's influence. Yet there are basic tenants

that occur throughout all the afore mentioned definitions of wellness. Recurring themes include self-awareness and personal responsibility, an ultimate goal of self-actualization, an emphasis on process and growth, and the integration of mind, body, and spirit (Light, 1993).

Theorizing Wellness

Today's conception of wellness has been fostered by disillusion with traditional medicine and a growing self-care movement (Clark, 1986). Practitioners of traditional medicine treat the symptoms of disease. Self-care entails the prevention of disease. In 1990 the U.S. Department of Health and Human Services published Healthy People 2000: National Health Promotion and Disease Prevention Objectives. It gave credit to lifestyle factors for having the greatest influence upon disease and accidents. Healthy People 2000 is evidence of an increasing awareness of issues concerning health and wellness, holism, wellness readiness, and social support.

Health & Wellness

The terms health and wellness have been used interchangeably (Eddy, Bibeau, Glover, Hunt, & Westerfield, 1989; Hamrick, Frankle, & Crase, 1990; Pender, 1987; Petosa, 1984). However, there are distinguishable differences between health and wellness. Health literature develops from medically-

allied disciplines and is the basis for many government-supported social policies. The disciplines associated with health include health education, health promotion, nursing, behavioral science, public health, nutrition, physical education, and occupational health (Light, 1993). Some wellness literature has strong spiritual and psychological foundations that emphasize humanistic efforts to change the self. Wellness also has ties to psychology, sociology, the humanities, and religion (Light, 1993).

The writings of Rogers (1961), Bandura (1977), and Maslow (1968) have influenced the concept of wellness. Psychologists and sociologists believe that the potential for growth is greatest in nurturing environments. Humanists believe that "the will to grow, to self-actualize, is an innate drive. The drive pushes humans to find meaning in life, to find unity in experiences, and to actualize their potential" (Light, 1993, pp. 28-29). Persons who believe that spirituality provides meaning and direction in life enable themselves to grow in their quest for meaning and a higher quality of life (Anspaugh, Hamrick, & Rosato, 1994).

Carlyon (1984) said that health professionals are not qualified to facilitate wellness activities because of their inability to distinguish between wellness promotion and health promotion. According to Carlyon, "wellness promotion tasks are

primarily social, philosophical, and spiritual--they are not medical or public health tasks. Health professionals are almost totally unprepared to understand or carry out such tasks" (1984, p. 28). Carlyon furthermore suggested that health professionals consider wellness promotion activities to be unconventional and thus off limits.

To Carlyon, the goals of wellness include self-actualization, personal fulfillment, wholeness, and high-quality living. Achieving the goals of wellness requires "accepting the truth. . . [and] making fundamental changes in society and in ourselves and these changes cannot be effected through diet and exercise" (1984, p. 29). Carlyon encouraged readers to look inward instead of outward in search of humankind's noblest possibilities. According to Greenburg, "[t]he learner is the one who knows the totality and essence of the learner best" (1985, p. 405). Greenburg also recognized that "health educators not employing the learners themselves as partners in the learning process will have great difficulty in accomplishing any holistic--wellness--goal" (1985, p. 405).

Holism

Before the mid 1900s, viruses, bacteria, and parasites were the leading causes of death in the United States. It was virtually impossible to prevent many diseases because the appropriate immunizations and vaccines had not been discovered.

It has been predicted that by the year 2000, most illnesses will be caused by day-to-day living habits (Edlin & Golanty, 1992, p. 12). In many instances, we will make ourselves sick by the way we live.

In increasing numbers, physicians are reporting that patients are not only feeling sick but are also showing no symptoms of any underlying physical problem. That is, "the sick feelings and the symptoms are the result of an emotionally upsetting life situation' (Edlin & Golanty, 1992, p. 12). It appears that tension, worry, frustration, and anger are predisposing people to stress-related illnesses classified as chronic and degenerative. Few physicians are trained to deal with emotional problems, and very little can be done medically to help someone with a chronic degenerative disease. According to Edlin & Golanty (1992),

> the only effective way to deal with these diseases is to prevent them, which in many instances involves improving living habits . . . . Personal responsibility for health involves establishing attitudes and behaviors that promote positive wellness . . . . If individuals accept this responsibility, they will be free from illness much more of the time. (p. 13)

The belief that life should be viewed in its totality has become a key inspirational principle among survivors of chronic

and degenerative diseases (McDowell, 1989). This belief is intended to affect all aspects of life including health, politics, education, economics, spirituality, work, leisure, family, environment, science, technology, and the arts. Life is not meant to be measured by the functioning of its parts as independent entities. Instead, "life is like some large system operating as a function of the interdependent relationship of subsystems" (McDowell, 1989, p. 17). Holism is "a philosophy that views everything in terms of patterns of organization, relationships, interactions, and processes that combine to form a whole" (Dossey & Keegan, 1988, p. 5). According to Dossey and Keegan,

> [w]holeness can be present when one has high levels of wellness and also when one has known disease/disability or is in the process of dying. Wholeness is a process and is present when we view ourselves as an open living system in a tapestry of relationships and events. Our actions have an effect on our body-mind-spirit. (p. 5)

The way to perceive life is not to analyze its separate components. The consequence of such an analysis is a fragmented understanding of how life's components synergistically function as a whole.

Helping professionals often overlook the value of interdependent life forces and their collective impact on

individuals and society. Accurate perceptions of life in its totality await those who understand what holism entails. McDowell said that holism "entails a great deal of personal responsibility for our actions, and a great deal of respect toward the whole individual by professional helpers" (1989. p. 17). Vocational specialists, health specialists, spiritual specialists, education specialists, guidance specialists, leisure specialists, and family specialists are considered by McDowell to be professional helpers.

The role of holism in the teaching-learning process has been debated by professional education specialists. Poplin (1988), Heshusius (1989), and Iano (1990) advocated the application of holistic principles to research, assessment, and intervention in teaching and learning. They furthermore argued that the positive approach to teaching and learning reduces homo sapiens to purely reactionary mammals, thus disregarding humankind's ability to consciously adapt. Warner (1993) added to the discussion by offering Bhasker's (1989) concept of "critical realism," e.g., the theoretical identification of cause-effect relationships, as an alternative to holism and positivism. Isaacson (1993) then responded to Warner's comments on positivism, critical realism, and holism by suggesting that relationships, predictions, and causes in the natural and social sciences be studied from a systematic approach.

Holists Poplin (1988), Heshusius (1989), and Iano (1990) argued against the positivism paradigm and on behalf of subjective holism. Advocates of subjective holism believe: (a) that individuals are not passive, reactive organisms, (b) that the actions of individuals and societies cannot be controlled or predicted, and (c) that educational experiences can be characterized as individually and socially meaningful. Pure positivists believe that knowledge can only be gained through empirical, or scientific research.

Warner (1993) advocated critical realism as an alternative research approach to holism or positivism. Critical realism refers to the unity of method that exists between the natural and social sciences (Bhaskar, 1989). The natural and social sciences are similar with respect to their logic, but at the same time have objects of inquiry that are ontologically different. To the critical realist, "the goal of science is the theoretical identification of things and their causal powers" (Warner, 1993, p. 312). Critical realism is different from positivism in that critical realism recognizes both the subjective and the social aspects of scientific inquiry. Compared to critical realism's nonpositivist appreciation for scientific inquiry, "[holism] can degenerate into a full-blown idealism that undervalues or ignores the important role that

science can play in solving the problems we face" (Warner, 1993, p. 311).

Isaacson (1993) narrowed the philosophic gaps between holism, critical realism, and positivism by further lessening the distinction between the natural and social sciences. According to Isaacson, "education provides many examples of natural phenomena explained in terms of social or behavioral outcomes" (1993, p. 326). Human behavior is intentional and complex. Any systematic approach to studying human behavior has the potential to identify causal mechanisms and predictable regularities that can help researchers better understand whole participants. The relationship between researcher and participant has roots in both the natural and social realms. By perceiving wholeness in participants' lives, researchers as practitioners are thus able to facilitate wellness readiness.

Wellness Readiness

According to Barton, "wellness is an individual self directed process the foundation of which is composed of routine day to day behaviors. The cumulative effect of these behaviors is either positive or negative . . . . These day to day behaviors are the responsibility of the individual" (1990, p. 23). Thus, wellness readiness refers to one's general predisposition toward daily incorporation of wellness behaviors into one's lifestyle (Barton, 1990). Individuals are ready to

voluntarily change their wellness behaviors when four conditions are met. First, one must believe that a particular positive outcome will result from a particular change in behavior. Second, an individual must feel that a current behavior is negative enough to warrant change, and that a potential outcome of changed behavior is of positive value. Third, "the individual must perceive themselves as being capable of changing their behaviors" (Barton, 1990, p. 44). Lastly, one must actually intend to change. That is, intentions are the antecedent to actual behavior. A deficiency in any one of these areas can prevent wellness behaviors from occurring. The occurrence of wellness readiness may be influenced by degree of social support.

Social Support

Social support theory, a variation of systems theory, involves one key principle. That is, social support systems are sets of interrelated units or persons sharing a common function or united to achieve a common purpose (Denton, 1989). People generally receive their social stimulation and motivation from a multidimensional support system that includes immediate family, extended family, friends, teachers, colleagues, organizations, and health professionals.

According to Hayes, Brightwell, & Antozzi, "[a] good support system involves caring" (1984, p. 46). People are

naturally drawn toward caring relationships, empowered communities, economic security, and liberating education. Support theory prescribes the development and maintenance of social networks to satisfy multiple needs. We care for ourselves and others when we provide multiple opportunities for growth and development. Hayes, et al. (1984) identified active listening, self-disclosure, and feedback as elements of relationships that are caring, mutual, and rewarding. These personality characteristics also foster the growth and development of new socially supportive relationships. Hayes, et al. (1984) recommended that students be intentional about lessening personal stress by expanding and improving their social support system. Stress is compounded by changes in students' social networks (Bogat, Caldwell, Rogosch, & Kriegler, 1985).

Although a number of developmental theories are available, no single theory is always adequate for use with adult students. Wellness theoretically combines health, holism, readiness, and social support, "thus creating an eclectic theory that more adequately meets the needs of professionals in their work to develop the whole person" (Warner, 1985, p. 33).

Researching Wellness

In 1980 Spencer wrote that in order for adults to learn effectively, it is essential that they maintain their well-being. Both qualitative and quantitative measures of wellness can be found in the literature, and both research approaches tend to focus on the wellness activities of employees and students.

Qualitative Studies

Subjective well-being has been thought of as a global, multidimensional construct encompassing life satisfaction, happiness, and morale (Okun, Stock, & Covey, 1982). Light (1993) conducted a formative evaluation of instructors' and students' experiences of a required course on wellness. Formally enrolled undergraduates and associated faculty were interviewed, observed, and their records reviewed. Outcomes for faculty included personal satisfaction, professional growth, creativity, and understanding of liberal education tenants. Outcomes for students included friendships, critical thinking, self-awareness, goal-setting, physical exercise, stress management, and communication.

McPortland (1988) examined the contributions of adult education principles to five worksite wellness programs. Data collected from interviews, observations, and surveys were themitized. Prominent themes included concern for the following

areas of program development: learner characteristics, program philosophy and goals, program evaluation and linkages, organization and administration, and instruction and curriculum. Mellor (1993) studied how adults advance in their journey toward greater wellness. A series of interviews with five middle-age males and five middle-age females were tape-recorded and transcribed. Transcriptions were then ethnographically coded via computer. Computer analyses linked goal achievement to visionary thinking, change to self-concept and life satisfaction, and adult learning to wellness.

Eyring (1993) attempted to better understand the subjective essence of wellness among 12 traditional college students. Phenomenological analysis of participants' taped interviews identified students' experiences of well-being as emerging from a context of change, and characterized by self-control and self-confidence. Clark (1986) qualitatively identified barriers that prevented 55 nursing students from participating in wellness behaviors. Barriers included fear, guilt, and lack of motivation. Wellness behaviors were reinforced by social support networks and self-responsibility.

It is not uncommon for educational programmers to propose that they can enhance employees' and/or students' well-being. Although this claim is easily made, it is difficult to substantiate subjectively. Qualitative research methodologies

seek to understanding the essence of persons' attitudes, needs, interests, beliefs, goals, and experiences (Terenzini, 1974). Operational evaluations of wellness may be inappropriate in that they may be, according to Okun, et al. (1982), insufficiently responsive to persons' attitudes, needs, interests, beliefs, goals, and experiences. Since "many educational programs contain objectives pertaining to subjective well-being, evaluations will have to include assessments of this domain" (Okun, et al., 1982, p. 534). Additional qualitative assessments of wellness have been conducted among high school students (Hisiro, 2000; Swinth, 1997), nurses (Cullen, 2000; Bone, 1997; Horton, 1998), master therapists (Mullenbach, 2000), nontraditional students (Brazier, 1998), law enforcement officers (Patton, 1998), cancer patients (Murdock, 2000; Young, 1998), diabetics (Klepac, 2000), African-American boys (Laidlaw, 1998), older widows (Collins, 1999), and human resource directors (Porterfield, 1999).

Quantitative Measures

Quantitative research on wellness, like qualitative studies of wellness, tends to focus on the experiences of employees and students. Thus the majority of quantitative assessments of wellness can be categorized according to efforts made by employees and students.

Of the 2,000 employees exposed to Johnson & Johnson Company's comprehensive wellness program over a two-year period, Wilbur (1983) found that vigorous physical activity increased by 104% and that physical activity was associated with reduction in coronary risk. After five years, the medical costs of participants were 200% lower than the medical costs of a nonparticipating control group, and both hospital admissions and number of hospital stays for the control group were more than double those of participants (Bly, Jones, & Richardson, 1986). It was concluded in 1990 by the Association for the Advancement of Health Education that Johnson & Johnson Company's medical costs and absenteeism were reduced by 40% and 18%, respectively.

The University of Texas at Arlington sought to demonstrate concern for employee welfare by initiating an experimental wellness program that included components of both physical fitness and health education (Moxley, 1990). An experimental group of 50 student affairs employees was compared to a control group of 152 university employees. After ten months, the participating experimental group was significantly more satisfied than the nonparticipating control group in the areas of physical well-being, overall job, stress level, productivity, morale, and employee interaction.

At a small university in central Illinois, a survey was conducted to determine the wellness interests of 338 employees

and 533 students (Williams, 1990). Both groups rank ordered managing stress, exercising, and proper nutrition as their three highest priorities for wellness programming.

Wellness was one of 16 human development outcomes for two-year college students identified as important and encouraged by 572 randomly selected chief academic and student affairs officers (May, 1993). All states, accreditation regions, and types of two-year colleges were represented in the Delphi process. Physical fitness, nutrition, drug usage, sexuality, relationships, stress, and safety were the dimensions of wellness in need of improvement among college students reported by Heck and Pinch (1990).

Archer, Probert, and Gage (1987) conducted a comprehensive investigation into students' perceptions and practices of wellness. A nationwide survey of over 3,000 randomly sampled college students found that the physical dimension affected students' overall level of wellness the most and that the spiritual dimension affected students' wellness the least. Students felt they needed the most information about occupational wellness. Positive relationships and exercising were perceived to be the most beneficial dimensions of wellness. Detriments to wellness included worry, not enough sleep, procrastination, and depression. Participation in wellness activities was most influenced by the enjoyment experienced

during the activity and the time required to complete the activity.

According to Newhall, "[n]ursing science has begun to produce its own plethora of conceptual ideas concerning wellness" (1991, p. 5). Newhall found a significantly positive correlation between wellness behaviors and perceptions of empowerment among baccalaureate nursing students. Among 120 community college students, Owens (1989) found that enrollment in a two-year nursing program increased health behavior awareness but was not an impetus for behavioral change. Advanced nursing students demonstrated more preventive health care practices than beginning nursing students (Camooso, Green, Hoffman, Leuner, Mattis, Ptaszynski, Reiley, Silver, Winfrey, & Winland, 1980). Richter, Malkiewicz, and Shaw (1987) witnessed a decline in wellness behaviors among three groups of nursing students regardless of exposure to health promotion information. It was believed that stress was an intervening variable.

Residence hall departments are emphasizing living environments conducive to wellness lifestyles. Four hundred sixteen freshmen at a mid-sized midwestern state university were questioned concerning their experience as a resident living in one of six wellness oriented dormitories (Nicklaus, 1991). Significant differences existed between women and men. Women indicated that too much emphasis was placed on traditional

social activities. Women also indicated that their wellness residence hall environments did not provide enough intellectual stimulation. It was found that a wellness program operating in a residence hall at the University of Northern Colorado had a positive effect on the self-concepts and self-esteems of 23 randomly selected residents (Isaacson, 1991). Lack of such a program was associated with lower self-concept and self-esteem.

Boog (1990) sought to determine how 971 randomly selected students regarded wellness at Oklahoma State University. Graduate students ate more nutritiously, practiced safety, and dealt with stress better than undergraduates. Males used tobacco products more frequently than females. Caucasians drank more alcohol than African Americans. Overall, students ranked fitness and exercise, stress management, and weight control as wellness program essentials. Rapp (1988) investigated the relationship between stress and illness. Her study of 111 conveniently sampled participants included 82 graduate students. Rapp's total sample included 79 Caucasians and 23 African Americans. Illness was associated with greater stress among caucasians. Among blacks, illness was associated with less stress. Overall, greater stress was associated with illness. Rapp concluded that the variations in her findings resulted from participants' differing wellness levels.

National Wellness Institute

Wellness centers and associated facilities are becoming more plentiful on U.S. college and university campuses. The prototype for many campus wellness programs is at the University of Wisconsin at Stevens Point. The University of Wisconsin at Stevens Point is also home to the National Wellness Institute. Founded in 1977, the National Wellness Institute has estimated that about one-third of the nation's 3,400 academic institutions provide wellness programming and facilities for approximately 13.3 million employees and students (McMillen, 1986).

Donald B. Ardell is a member of the National Wellness Institute's board of trustees. William H. Hettler is the director of health services at the University of Wisconsin-Stevens Point and president of the National Wellness Institute's board of directors. Both Ardell and Hettler are pioneers of the wellness movement and their definitions of wellness are presented earlier in this paper. The theory and research of Hettler (1980) has inspired the development of at least two instruments that measure wellness, e.g., TestWell, a Wellness Inventory (National Wellness Institute, 1992), and Lifestyle Assessment Questionnaire (National Wellness Institute, 1978).

Jones and Frazier (1994) tested the hypothesis that wellness professionals posses high levels of wellness as measured by TestWell and self-esteem as measured by the Self-

esteem Inventory (Coopersmith, 1990). Ninety wellness professionals attending the National Wellness Conference volunteered to participate. Total self-esteem scores correlated with total wellness scores ($r = .59$; $p < .05$). TestWell subscale means were highest on "safety" and "sexuality and emotional awareness." The lowest subscale scores were on "environmental wellness," "physical fitness and nutrition," and "emotional management." In addition, Jones and Frazier calculated a Cronbach coefficient alpha of .84 for TestWell. Additional investigations into the reliability and validity of TestWell have been conducted by Stewart (1998), McClanahan (1990), Van Dyke (2001), Murray (1996), and Owen (1996, 1999).

Physical fitness as measured by levels of drinking and smoking was negatively correlated with wellness as measured by the Lifestyle Assessment Questionnaire among 10,023 male and 10,698 female college students (Jensen, Peterson & Murphy, 1992). DeStefano and Richardson (1992) found a positive relationship between LAQ scores and self-reported, or subjective perceptions of physical fitness among 214 college freshmen. However, DeStefano and Richardson found no significant relationships between scores on the Lifestyle Assessment Questionnaire and objective physiological indices (i.e., blood pressure, pulse, cholesterol level, body composition, and flexibility). A sample of Royal Canadian Mounted Police (RCMP)

perceived themselves as in better health and eating more nutritiously than their Lifestyle Assessment Questionnaire scores indicated (Pealo, 1992). A positive relationship was found among RCMP between wellness as measured by the Lifestyle Assessment Questionnaire and physical fitness and nutrition.

Wellness as measured by the Lifestyle Assessment Questionnaire has been positively correlated with additional variables. Additional variables include age (Britzman, 1988; Edwards, 1994), level of education (Britzman, 1988), personality (Britzman, 1988), gender (Jenson, Peterson, & Murphy, 1992; Edwards, 1994; Freeman & Gintner, 1989; Cooper, 1990), learning environment (Agley, 1990), job satisfaction (Eickholt, 1995), use of tobacco and alcohol (Edwards, 1994), lifestyle (Honderd, 1986), self-concept (Honderd, 1986), mental health (Freeman & Gintner, 1989), behavior (Cooper, 1990), cognition (Cooper, 1990), and hostility (Leiker & Hailey, 1988).

Fedorovich (1992) hypothesized that students hired as resident assistants at Mississippi State University would have higher scores on the LAQ than students who applied but were not hired as resident assistants. Lifestyle Assessment Questionnaire scores were shown to be a differential factor in the selection of resident assistants at Mississippi State University. Lundquist (1989) hypothesized that student assistants in the dormitories at Colorado State University

learned their health behaviors from immediate family members. However, it was concluded that the family health behaviors of smoking, alcohol use, and obesity were not related to the overall wellness of 112 student assistants as measured by the Lifestyle Assessment Questionnaire at the .05 alpha level. Lundquist further concluded that student assistants who overcame ill-fated family influences did so as a result of accepting personal responsibility.

Both qualitative and quantitative measures of wellness can be found in the literature, and both research approaches tend to focus on the wellness activities of employees and students. Data collected from interviews and observations found employees to be concerned with professional growth, creativity, and program development. Students were interested in physical fitness, stress management, and relationships. Quantitatively, employees successfully modified their wellness behaviors by utilizing elements of physical fitness and health education. Productivity, diet, stress level, morale, medical costs, and absenteeism have been affected by employees' wellness levels. Drug usage, safety, occupational awareness, time management, social awareness, and sexuality are associated with wellness among students. Additional variables have been positively correlated with scores on the Lifestyle Assessment Questionnaire.

Summary

This paper reviewed the literature related to wellness. Wellness was defined according to Dunn, Ardell, Hettler, Dossey and Keegan, Travis and Ryan, and Pilch. Theoretical perspectives included health and wellness, holism, wellness readiness, and social support. Research related to wellness was discussed in terms of qualitative studies and quantitative measures.

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